OFFICIAL

Certificate of Acceptance

PA05/06805

Manufacturer:

iLECSYS Rail Ltd

Issue: 2

Valid From: 01/03/2024

NetworkRail

INSULATION MONITORING EQUIPMENT

Product Description

Integrated and standalone insulation monitoring and fault location FSP units for IT Signalling power, with or without switchgear, in pedestal or case-mounted annexes or for installation in location cases.



Scope of Acceptance

Full Acceptance

Full acceptance as per the User and Manufacturer's conditions detailed within this certificate.

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.

Reviewed by:

Authorised by:

Steve Rennolds **Product Acceptance Specialist**

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Felix Langley Network Technical Head of Power Distribution HV/LV



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Specific Conditions

The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section.

Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.

Manufacturer

 All Class II production units shall be tested in accordance with section 4.5.2 of NR/L2/SIGELP/27409 (Class II dielectric test) and appropriate iLECSYS Rail inspection and test procedures. Test records along with photos for each production unit shall be maintained for traceability of Class II tests.

User

- All items with references to other certificates are to be used as per the User Conditions on those certificates.
- 2) Not to be used in subsurface environments in accordance with section 12 stations and locations.
- 3) Class II equipment shall not be drilled on site. Brass glands (Metallic) shall only be used with fully Insulated Adaptor Reducer, with a dielectric strength exceeding 3.5KV, in accordance with NR/L2/SIGELP/27410.

Product Configuration

System/Complete Assembly and range

Part No.	Description	Catalogue No.
BENDER Standalone Solutions		
ILS200030-001	Pedestal Mounted Annexe IMD Assembly - Bender Housed in 086/010803 Enclosure with Stud Terminal Connection Box for 2/4C Cable <120mm. 1SW Micro FSP From Certificate PA05/06087 Tier 1 Monitoring Unit RS4-T1-C-FSP Certificate PA05/07464 Supplied complete with Metal Post for half LOC base fixing with cable cover	0088/083354
ILS200030-004	Pedestal Mounted Annexe IMD Assembly - Bender Housed in 086/010803 Enclosure with Stud Terminal Connection Box for 2/4C Cable <120mm. 1SW Micro FSP From Certificate PA05/06087 Tier 1 Monitoring RS4-T1-C-FSP Certificate PA05/07464 Supplied complete with GRP pedestal for half LOC base fixing	0088/083355
ILS200030-007	Case Mounted Annexe IMD Assembly - Bender Housed in 086/010803 Enclosure with Stud Terminal Connection Box for 2/4C Cable <120mm. 1SW Micro FSP From Certificate PA05/06087 Tier 1 Monitoring RS4-T1-C-FSP Certificate PA05/07464 Supplied complete with Annexe Clamp for LOC mounting	0088/083356



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Part No.	Description	Catalogue No.			
ILS200030-019	Case Mounted Annexe IMD Assembly - Bender	0088/083357			
	Housed in 086/010803 Enclosure				
	Tier 1 Monitoring RS4-T1-B-FSP Certificate PA05/07464				
	Supplied complete with Annexe Clamp for LOC mounting				
NO SWITCHGEAR INCLUDED Viper Standalone Solutions					
	ILS200030-002 Pedestal Mounted Annexe IMD Assembly - Viper				
123200030-002	Housed in 086/010803 Enclosure with Stud Terminal	0088/083358			
	Connection Box for 2/4C Cable <120mm.				
	1SW Micro FSP From Certificate PA05/06087				
	Tier 1 Monitoring Unit Cable Guardian certificate				
	PA05/06538				
	Supplied complete with Metal Post for half LOC base fixing				
	with cable cover				
ILS200030-005	Pedestal Mounted Annexe IMD Assembly - Viper	0088/083359			
	Housed in 086/010803 Enclosure with Stud Terminal				
	Connection Box for 2/4C Cable <120mm. 1SW Micro FSP From Certificate PA05/06087				
	Tier 1 Monitoring Cable Guardian Certificate PA05/06538				
	Supplied complete with GRP pedestal for half LOC base				
	fixing				
ILS200030-008	Case Mounted Annexe IMD Assembly - Viper	0088/083360			
	Housed in 086/010803 Enclosure with Stud Terminal				
	Connection Box for 2/4C Cable <120mm.				
	1SW Micro FSP From Certificate PA05/06087				
	Tier 1 Monitoring Cable Guardian Certificate PA05/06538				
II 0000000 000	Supplied complete with Annexe Clamp for LOC mounting	0000/00004			
ILS200030-020	Case Mounted Annexe IMD Assembly - Viper Housed in 086/010803 Enclosure	0088/083361			
	Tier 1 Monitoring Cable Guardian PA05/06538				
	Supplied complete with Annexe Clamp for LOC mounting				
	NO SWITCHGEAR INCLUDED				
Schneider Standalo					
ILS200030-003	Pedestal Mounted Annexe IMD Assembly - Schneider	0088/083362			
	Housed in 086/010803 Enclosure with Stud Terminal				
	Connection Box for 2/4C Cable <120mm.				
	1SW Micro FSP From Certificate PA05/06087				
	Tier 1 Monitoring From Certificate PA05/07154				
	Supplied complete with Metal Post for half LOC base fixing with cable cover				
ILS200030-006	Pedestal Mounted Annexe IMD Assembly - Schneider	0088/083363			
120200000 000	Housed in 086/010803 Enclosure with Stud Terminal	0000,00000			
	Connection Box for 2/4C Cable <120mm.				
	1SW Micro FSP From Certificate PA05/06087				
	Tier 1 Monitoring From Certificate PA05/07154				
	Supplied complete with GRP pedestal for half LOC base fixing				
ILS200030-009	Case Mounted Annexe IMD Assembly - Schneider	0088/083364			
	Housed in 086/010803 Enclosure with Stud Terminal				
	Connection Box for 2/4C Cable <120mm.				
	1SW Micro FSP From Certificate PA05/06087				
	Tier 1 Monitoring From Certificate PA05/07154				
	Supplied complete with Annexe Clamp for LOC mounting				



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Part No.	Description	Catalogue No.
ILS200030-021	Case Mounted Annexe IMD Assembly - Schneider	0088/083365
	Housed in 086/010803 Enclosure	
	Tier 1 Monitoring From Certificate PA05/07154	
	Supplied complete with Annexe Clamp for LOC mounting	
	NO SWITCHGEAR INCLUDED	
GE MICOM Standalo	MICOM Standalone Solutions	
P14DL Annexe	P14DL Fault Locator	0088/083366
	Annexe	
	Mounted Housed in 086/010803 Enclosure	
P14DL Pedestal	P14DL Fault Locator 0088/083367	
	Pedestal	
	Mounted Housed in 086/010803 Enclosure	



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Part No.	Part No. Description			
Part No. Description Catalogue No. Integrated Solutions				
PL- CII/4SW/ESP/IMD- SLC35	IMD Integrated Power Block - with ESP 400 x 300 Switchgear Assembly complete with IMD and ESP integration 2 SPARE Functional Supply Switches (SWA & SWB) For 2C Cable up to 35mm CTs Supplied fitted within switchgear assembly. Bender Modules include: - EDS440WNR - DRAN30 - TBOX-TG2-500-4W-BT12 - ATL T3335 25VA 650/110V TX	0088/083368		
PL- CII/4SW/ESP/IMD- SLC120	IMD Integrated Power Block - with ESP 400 x 300 Switchgear Assembly complete with IMD and ESP integration 2 SPARE Functional Supply Switches (SWA & SWB) For 2C Cable up to 120mm CTs Supplied fitted within switchgear assembly. Bender Modules include: - EDS440WNR - DRAN30 - TBOX-TG2-500-4W-BT12 - ATL T3335 25VA 650/110V TX	0088/083369		
4SW-ESP-K4C- IMD	IMD Integrated Power Block 400 x 700 Switchgear Assembly complete with IMD and ESP integration 2 SPARE Functional Supply Switches (SWA, SWB, SWC) For 2C and 4C Cable up to 120mm. CTs Supplied fitted within switchgear assembly. Bender Modules include: - EDS440WNR - DRAN30 - TBOX-TG2-500-4W-BT12 - ATL T3335 25VA 650/110V TX	0088/083370		
PL-CII/4SW/IMD- SLC35	IMD Integrated Power Block 400 x 300 Switchgear Assembly complete with IMD integration 3 SPARE Functional Supply Switches (SWA, SWB, SWC) For 2C Cable up to 35mm CTs Supplied fitted within switchgear assembly. Bender Modules include: - EDS440WNR - DRAN30 - TBOX-TG2-500-4W-BT12 - ATL T3335 25VA 650/110V TX	0088/083371		



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Part No.	Description	Catalogue No.
PL-CII/4SW/IMD-	IMD Integrated Power Block	0088/083372
SLC120	400 x 300 Switchgear Assembly complete with IMD	
	integration	
	3 SPARE Functional Supply Switches (SWA, SWB, SWC)	
	For 2C Cable up to 120mm	
	CTs Supplied fitted within switchgear assembly.	
	Bender Modules include:	
	- EDS440WNR	
	- DRAN30	
	- TBOX-TG2-500-4W-BT12	
	- ATL T3335 25VA 650/110V TX	

Hardware (Maintenance Spares and Line Replaceable Units

Part No.	Description	Catalogue No.
201216-6385	Incoming/Outgoing Terminal Box, M10 Stud Connections, <120mm 2/4C Cable	0088/083373
211105-7953	Empty CT Connection Box for Housing CT's for Integration with Approved POWER Modules	0088/083374
211105-7957	Empty CT Connection Box for Housing CT's for Integration with Approved FUNCTIONAL Modules	0088/083375
ILS100294-005	Annexe Metal Post Assembly with Cable Cover	0088/083376
ILS100294-002	Annexe LOC Mount Bracket Assembly with Cable Cover	0088/083377

Assessed Documentation

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
	Folder '06805 – iLecsys'	-	03/11/2022	T1
	Folder 'Trial Reports'	-	08/02/2024	2

Manuals and Training Materials

Reference	tle Doc. Date and Ap Rev. to Cert. issu			
	iLECSYS Installation Guide for the Annexe to Apparatus Housing Clamp Assembly		01/03/2022	T1
ILS100042	Compact Class II Power Block Single Layer	2.0	20/04/2021	T1
ILS100047(CAMaster)	Class II Micro FSP Power Block (CAMaster Fuse Carrier Variants)	1.2	05/04/2016	T1
ILS100047(Connect Box)	Micro FSP Class II Connection Boxes (Class II Connection Box Variants)	1.1	20/11/2016	T1
ILS100047(IEC)	Class II Micro FSP Power Block (IEC Fuse Carrier Variants)	1.1	11/06/2015	T1
ILS100233(CAMaster) Integrated Annexe		7.0	11/01/2018	T1

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Certificate History

Issue	Date	Issue History
T1	07/11/2022	First issue for trial
2	01/03/2024	Full certification for the range inclusive of cat. no.s 088/083354 to 088/083377

Contact Details

Lead Reviewing Engineer Manufacturer Applicant

Russell Cordingley iLECSYS Rail Ltd Clare Yeowart

railoffice@ilecsysrail.co.uk Russell.Cordingley@networkrail.co.uk clare.yeowart@networkrail.co.uk

General Terms & Conditions

1) General

- 1) This certificate can only be amended by Network Rail Product Acceptance, the Network Technical Head or nominated delegate. Any alterations made by a other persons will invalidate the entire certificate.
- 2) Failure to abide by the requirements in this Certificate of Acceptance may invalidate the certificate, thereby restricting the right to operate the product and / or limiting the future supply and deployment of the product on the infrastructure.
- 3) Upon the review date this certificate and the product it relates to is invalid and not accepted for use. Manufacturers are to make an application for a review prior to the review date.

2) Manufacturer

The Manufacturer shall:

- 1) Ensure that all products supplied comply with the standards defined in the Acceptance Requirements or otherwise documented as part of the assessment, including meeting the reliability requirements included in the Acceptance Requirements and in any deed of warranty for the relevant certificate number.
- 2) Notify Network Rail Product Acceptance:
- a. Within 48 hours, of any deficiencies affecting the quality, functionality or safety integrity of the product (including corrective action undertaken or proposed).
- b. Of any intended change to the accepted product; changes include:
- i. a change to the product configuration (to the actual product or its application);
- ii. a variation to or addition of manufacturing locations or processes;
- iii. a change in the name or ownership of the manufacturing company;
- iv. any changes to the ability or intention to support with technical services, spares or repairs.
- 3) The Manufacturer shall provide Network Rail Product Acceptance or National Supply Chain (NSC) at least 12 (twelve) months notice of its intention to discontinue supply or to provide such notice as is reasonable if such discontinuance is outside its control and will offer the opportunity of a Last Time Buy to Network Rail together with date for last order placement and supply of the parts affected. The introduction of proposed alternative products shall be communicated to Network Rail Product Acceptance.
- 4) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).
- 5) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary. 6) Where applicable, specialist technical support, repairs and servicing of the product shall be carried out by the Original Equipment
- Manufacturer (OEM) or authorised agent only. 7) Network Rail may request information from the manufacturer to prove product compliance with clauses 1 and 2 above and reserve the right to suspend and/or withdraw any application where information is not forthcoming within a reasonable timeframe.
- 8) In accordance with Network Rail's Quality Assurance Policy Statement 2011, where the specification and/or Product Acceptance Certificates specify quality assurance classifications (QA1 to QA5) for the products, the manufacturer shall comply with the specified level of quality assurance for each product and allow Network Rail access to carry out its quality assurance checks.
- 9) The manufacturer shall give Network Rail's representatives access at all reasonable times to its premises and allow them to inspect its quality systems and production methods and, if requested, to inspect, examine and test the products both during and after their manufacture and the materials being used in their manufacture.

3) Conditions of Use

Specifiers, installers, operators, maintainers, etc. using the product shall:

- 1) Comply with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Product Acceptance.
- 2) Check that the application of use complies with the relevant certificate's scope of acceptance.



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3) Report any defect if it is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway in writing to Network Rail Product Acceptance.

- 4) Inform Network Rail Product Acceptance in writing of a change to the product configuration (or to the actual product or its application).
- 5) Operate, maintain and service the product in accordance with Network Rail standards and Operation and Maintenance manuals as appropriate.
- 6) Be appropriately trained and authorised for the installation, maintenance and use of the product.
- 7) Only send products for repair or reconditioning to the Original Equipment Manufacturer (OEM) or authorised agent.
- 8) Users are to be aware that Product Acceptance is not a substitute for design approval.

4) Compliance

Railways and Other Guided Systems (ROGS) Regulations

- 1) Where the product is to be used in areas where Network Rail is not the Infrastructure Manager (e.g. leased stations), the sponsor shall additionally obtain formal consent from the Infrastructure Manager for the locality where the equipment is to be installed. This may include a requirement for additional safety verification. The decision of that Infrastructure Manager is binding, and cannot be overridden by Network Rail except by the escalation processes established in the ROGS regulations
- 2) As required in Railway Group Standard GE/RT8270, at each use of this product the project or group responsible for installation and commissioning shall be required to demonstrate compatibility with:
- a. All rail vehicle types that have access rights over the area affected by the change
- b. Infrastructure managed by others
- c. Neighbours.

Railway Interoperability Regulations

- 3) For interoperable constituents of systems the project or group responsible for installation and commissioning shall be required to demonstrate compliance with the relevant Technical Specifications for Interoperability (TSI) where appropriate.
- 4) An authorisation from the national safety authority (i.e. the Railway Safety Directorate of the Office of Rail Regulation) is required before the equipment is to be used in revenue earning service.

5) Supply Chain Arrangements

- 1) Certificates of acceptance do not imply any particular quantity of supply nor any exclusivity of supply.
- 2) Products may be purchased by Network Rail or its agents, suppliers or contractors.
- 3) Manufacturers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other suppliers.